#### PATENT APPLICATION

In re the Application of

Attn: OIPE

Yukihito ICHIKAWA et al.

Application No.:

10/537,810

Docket No.:

124211

Filed: June 7, 2005

For:

PLUGGED HONEYCOMB STRUCTURE AND METHOD OF MANUFACTURING

HE UNITED STATES PATENT AND TRADEMARK OFFICE

THE SAME

#### REQUEST FOR CORRECTION OF PALM RECORDS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Attached is a photocopy of the original filing receipt on which errors have been corrected in red. These errors are being brought to the attention of the Patent and Trademark Office so that it may correct its records. A copy of the Preliminary Amendment filed on June 7, 2005 is also enclosed.

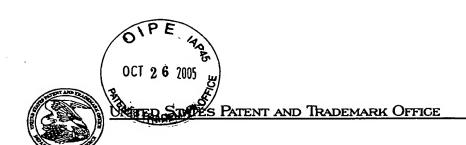
Philip A. Caramanica, Jr. Registration No. 51,528

JAO:PAC/cqc

Date: October 26, 2005

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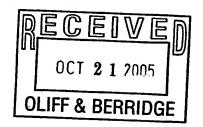
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25944 **OLIFF & BERRIDGE, PLC** P.O. BOX 19928 **ALEXANDRIA, VA 22320** 



**CONFIRMATION NO. 5483** 

**FILING RECEIPT** \*OC00000017258500\*

Date Mailed: 10/18/2005

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

#### Applicant(s)

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#### **Assignment For Published Patent Application**

NGK INSULATORS, LTD., NAGOYA-CITY, JAPAN

Power of Attorney: The patent practitioners associated with Customer Number 25944.

#### Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP03/15797 12/10/2003

#### Foreign Applications

JAPAN 2002-359232 12/11/2002

Projected Publication Date: 01/26/2006

Non-Publication Request: No

Early Publication Request: No

Title



**Preliminary Class** 

428

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#### PATENT APPLICATION



#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re the Application of

Yukihito ICHIKAWA et al.

Application No.: New U.S. National Stage of

PCT/JP03/015797

Filed: June 7, 2005 Docket No.: 124211

For: PLUGGED HONEYCOMB STRUCTURE AND METHOD OF MANUFACTURING

THE SAME

#### PRELIMINARY AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Please consider the following:

Amendments to the Specification;

Amendments to the Claims as reflected in the listing of claims; and

Remarks.

### Amendments to the Specification:

Please replace the title as follows:

# SEALED HONEYCOMB STRUCTURE BODY AND METHOD OF PRODUCING THE SAMEPLUGGED HONEYCOMB STRUCTURE AND METHOD OF MANUFACTURING THE SAME

#### Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-18 (cancelled)

19. (New) A plugged honeycomb structure comprising:

partition walls arranged in such a manner as to form a plurality of cells extending from one end face to the other end face through an axial direction;

an outer peripheral wall which surrounds an outer periphery of the partition wall; and plugging portions disposed in such a manner as to plug the cell in either end face, characterized in that at least some of the plugging portions arranged in at least the vicinity of the outer peripheral wall protrude from the end face, and a tip of a protruding portion is substantially flat or has a moderate curved face.

- 20. (New) The plugged honeycomb structure according to claim 19, wherein some or all of the plugging portions arranged in a portion other than the vicinity of the outer periphery protrude from the end face, and the tip of the protruding portion is substantially flat or has the moderate curved face.
- 21. (New) The plugged honeycomb structure according to claim 19, comprising a plugging portion including a protruding portion including a portion whose sectional shape crossing the axial direction at right angles is substantially circular.
- 22. (New) The plugged honeycomb structure according to claim 19, comprising a plugging portion including a protruding portion including a portion whose sectional shape crossing the axial direction at right angles is a substantially polygonal shape.
- 23. (New) The plugged honeycomb structure according to claim 22, wherein the substantially polygonal shape has a shape whose corner portion has been cut into a linear or curved shape.

- 24. (New) The plugged honeycomb structure according to claim 19, comprising a plugging portion including a protruding portion whose sectional shape parallel to the axial direction is a substantially quadrangular shape.
- 25. (New) The plugged honeycomb structure according to claim 24, wherein the substantially quadrangular shape is a shape whose corner portion has been cut into a linear or curved shape.
- 26. (New) The plugged honeycomb structure according to claim 19, wherein a maximum height from the end face to the tip of each protruding portion is substantially equal.
- 27. (New) The plugged honeycomb structure according to claim 19, wherein porosity of the protruding portion is smaller than that of another portion of the plugged honeycomb structure.
- 28. (New) A method of manufacturing a plugged honeycomb structure comprising:

  preparing a honeycomb structure comprising porous partition walls arranged in such a
  manner as to form a plurality of cells extending from one end face to the other end face
  through an axial direction, and

a plugging step of plugging at least some of the cells in either end face,

characterized in that the plugging step includes: a masking sub-step of disposing a film on the end face in such a manner as to mask some of the cells; and a filling sub-step of filling a predetermined cell which is not masked with a plugging material, and the filling sub-step includes: filling the cell with the plugging material up to a height which is not less than a height equal to that of an upper face of the film.

- 29. (New) The method of manufacturing the plugged honeycomb structure according to claim 28, wherein in the filling sub-step, the plugging material is applied at least twice.
- 30. (New) The method of manufacturing the plugged honeycomb structure according to claim 28, wherein in the filling sub-step, the plugging material is applied once.

- 31. (New) The method of manufacturing the plugged honeycomb structure according to claim 30, wherein the plugging material is a slurry including a liquid, and the liquid is a liquid which does not substantially penetrate into the partition walls.
- 32. (New) The method of manufacturing the plugged honeycomb structure according to claim 28, wherein in the masking sub-step, the film is disposed in such a manner as to cover all the cells, and a hole is made in a portion of the film, corresponding to a predetermined cell.
- 33. (New) The method of manufacturing the plugged honeycomb structure according to claim 32, wherein a hole is made in such a manner that periphery of the hole is raised in a thickness direction of the film.
- 34. (New) The method of manufacturing the plugged honeycomb structure according to claim 28, wherein the plugging material is a slurry containing a liquid, and viscosity of the slurry is in a range of 10 to 1000 dPa•s.
- 35. (New) The method of manufacturing the plugged honeycomb structure according to claim 28, wherein the plugging material is a slurry containing at least one type selected from a group consisting of a powdered organic material derived from plant, powdered synthetic resin, powdered carbon-based material, hollow synthetic resin, solid normal-temperature liquid or gas material, high-melting material, porous material, and hollow inorganic material.
- 36. (New) The method of manufacturing the plugged honeycomb structure according to claim 28, wherein after filling the cell with the plugging material, volume of the plugging material is expanded, and the protruding portion is protruded from the filter end face.

#### **REMARKS**

Claims 19-36 are pending in this application. By this Amendment, the title is amended, claims 1-18 are cancelled and claims 19-36 are new.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff Registration No. 27,075

Eric D. Morehouse Registration No. 38,565

JAO:EDM/cqc

Date: June 7, 2005

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